



Rapid HIV Testing in Emergency Departments: A Successful New Jersey Initiative

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ABSTRACT

Background: The New Jersey Department of Health and Senior Services, Division of HIV/AIDS Services (NJDHSS, DHAS)) introduced rapid HIV testing at selected emergency departments (EDs) to reach persons at risk for HIV/AIDS who do not access other facets of the health care system. This expansion of publicly funded counseling and testing was undertaken to facilitate integration of HIV counseling and testing into a health care setting in which it was previously unavailable.

Methods: Staff at publicly funded counseling and testing sites serving the EDs received counseling training, rapid testing training, completed competency testing and passed proficiency testing. All the EDs were licensed to conduct rapid testing by NJDHSS laboratory. Data were collected using the standard Centers for Disease Control and Prevention counseling and testing form.

Results: NJDHSS started rapid testing at publicly funded sites on November 1, 2003. A new initiative in 2004 included rapid testing in EDs. By December 2004, five EDs offered rapid testing. Data received through December 9, 2004, indicate that 140 people had rapid testing, all of whom received posttest counseling and results. Of the 140 people tested, 138 (98.6%) were negative and 2 (1.4%) were positive, both of whom were previously undiagnosed.

Conclusions: Rapid HIV testing has been successfully implemented at emergency departments in New Jersey. This allows access to HIV counseling and testing for at-risk persons who otherwise may not seek HIV counseling and testing. Rapid testing identified previously undiagnosed persons who presented to EDs for complaints unrelated to HIV disease. Based on the success of rapid testing in EDs thus far, NJDHSS, DHAS plans to expand rapid testing to more EDs.

INTRODUCTION

- New Jersey is a high prevalence state:
 - 5th in the US in cumulative reported AIDS cases,
 - 3rd in cumulative reported pediatric AIDS cases, and
 - 1st in the proportion of women with AIDS among its cumulative reported AIDS cases.¹
- The major focus of HIV prevention and control has been to promote the acceptance of risk reducing behaviors through prevention counseling and testing and to facilitate linkage to medical, prevention and other supports services.²
- The percentage of adults in the United States who obtain an HIV test has remained 10 – 12% per year for more than a decade.³
- Antibody testing to diagnose HIV was introduced in 1985.⁴ The standard laboratory testing protocol for HIV requires obtaining a specimen and sending it to a licensed laboratory for testing. The patient needs to return for a second visit to receive test.
- The Centers for Disease Control and Prevention (CDC) currently recommends that all providers integrate HIV counseling and testing into routine practice.²
- To improve the proportion of high risk persons tested for HIV and to increase the proportion of people who learn their test result, the New Jersey Department of Health and Senior Services Division of HIV/AIDS Services (NJDHSS DHAS) sought to provide rapid HIV testing at publicly funded counseling and testing sites using OraQuick®.

- Rapid testing offers the advantage of point-of-care testing with results available in 20 to 40 minutes.
- People do not need to return to obtain their test results. Therefore, more people learn their HIV status, and if infected can be referred for treatment, prevention programs, and social services much more rapidly.
- Five rapid HIV tests have been approved by the United States Food and Drug Administration (FDA) for commercial use:
 - Single Use Diagnostic System for HIV-1 (SUDS, Abbott Laboratories, Abbott Park, IL—no longer marketed),
 - OraQuick® HIV1 and the Oraquick® ADVANCE HIV-1/HIV-2 (Orasure Technologies, Bethlehem, PA),
 - Reveal™ (MedMira Laboratories, Halifax, Nova Scotia),
 - Unigold™ Recombigen® (Trinity Biotech plc (Wicklow, Ireland), and
 - Multispot HIV-1/HIV-2 (Bio-Rad Laboratories, Hercules, CA)
- Rapid diagnostic HIV testing has several clinical applications. These include:
 - assisting in diagnosis and counseling of patients with HIV disease,
 - reducing vertical HIV transmission for women who present in labor with unknown HIV status, and
 - reducing the risk of occupational and nonoccupational transmission of HIV.^{5,6}
- This poster describes the implementation and effectiveness of point-of-care rapid testing in New Jersey emergency departments.

METHODS

- OraQuick® was selected as the point-of-care rapid test. An OraQuick® device is depicted in Figure 1.



Figure 1. OraQuick® test device. :
From background to foreground:
Buffer vial in disposable tube rack,
Blood collection loop, and
OraQuick® HIV-1 antibody test device.

- Seven emergency departments received New Jersey Department of Health and Senior Services (NJDHSS) funding to conduct rapid HIV testing.
- A rapid testing QA plan was developed, policies and procedure were developed, and New Jersey laboratory licenses expanded to include rapid testing prior to starting at each site.

- All persons performing the testing had a full day training on the testing procedure, QA plan, policies, and reducing the risk of occupational blood-borne pathogen transmission.
- All persons conducting testing passed competency and proficiency testing.
- Counselors completed a full day counseling training session for the rapid test, including proper completion of the CDC counseling and testing form.
- All preliminary positive rapid tests were confirmed with a Western blot performed by the NJDHSS laboratory.
- Each site submitted completed CDC counseling and testing forms to NJDHSS.
- The forms were scanned into the counseling and testing database.
- Data analysis was done using SAS (version 8.02, SAS Institute, Cary, NC) and Microsoft Access (version 2000, Microsoft Corporation, Redmond, WA).

RESULTS

- By February 28, 2005, rapid testing was available at seven ED's: Jersey City Medical Center, Morristown Memorial Hospital, Newark Beth Israel Medical Center, Robert Wood Johnson University Hospital, St. Francis Medical Center, Trinitas Hospital, and St. Michael's Medical Center.
- The geographic location of the EDs is shown in Figure 2.

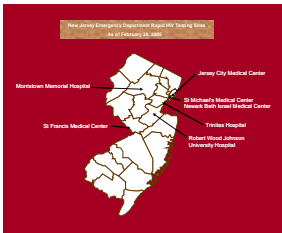


Figure 2. Emergency Department locations

- Through February 28, 2005, 359 rapid tests had been conducted.
 - 354 of the 359 (98.6%) persons tested received posttest counseling and results.
 - 353 (98.3%) tested HIV negative.
 - 6 (1.7%) had a preliminary positive and a confirmed positive result.
 - All 6 infected persons were newly identified positives.
 - 0 discordant lab results occurred. They all confirmed on Western Blot testing.

- As seen in Table 1, the majority of persons tested were minorities.

	Overall	%	Negative	Positive
Gender				
Male	185	52%	181	4
Female	174	48%	172	2
Total	359		353	6
Age (Years)				
< 12	0	0%	0	0
13 - 19	31	9%	31	0
20 - 29	158	44%	156	2
30 - 39	93	26%	90	3
40 - 49	50	14%	50	0
> 50	27	8%	26	1
Total	359		353	6
Race				
White	74	21%	74	0
Black	185	52%	179	6
Hispanic	83	23%	83	0
Asian/Pi	5	1%	5	0
Am.Ind/Al.	0	0%	0	0
Other	11	3%	11	0
Undetermined	1	0%	1	0
Total	359		353	6

Table 1. Demographic results.

- Table 1 also shows that the highest proportion of persons testing positive are:
 - male (4 of 185, 2.2%),
 - black (6 of 185, 2.2%),
- Rapid HIV testing has been successfully implemented at EDs in New Jersey.
- This is the first time that publicly funded HIV counseling and testing has been integrated into EDs in New Jersey.
- Integration of rapid testing in EDs provides access to HIV counseling and testing for at-risk persons who may not otherwise get tested for HIV. Those who are found to be infected are referred to a provider with experience and expertise treating HIV patients. In addition, these patients can be referred for prevention and social services.
- It is important to note that all 6 of the people who tested positive at these EDs were previously undiagnosed.
- Based on the success of publicly funded rapid testing at EDs thus far, NJDHSS plans to expand rapid testing to include more EDs.

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